

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 14-20 are pending in the present application. Claims 14-16 have been amended and Claims 17-20 have been added by the present amendment without adding new matter.

In the outstanding Office Action, the abstract, title, and the specification were objected to; Claims 14 and 15 were objected to; Claims 14-16 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-38 of Maurice (U.S. Patent No. 6,052,426) in view of Dieudonne (French Patent No. 2,542,869) and Kawamori (U.S. Patent No. 5,598,178); Claims 14 and 15 were rejected under 35 U.S.C. § 103(a) as unpatentable over Dieudonne in view of Kawamori; and Claim 16 was indicated as allowable is rewritten in independent form.

Applicant thanks the Examiner for the indication of allowable subject matter. However, Applicant believes that independent Claim 14 distinguishes over the applied art and therefore, dependent Claim 16 is maintained in dependent form.

The specification has been amended to state that this application is a divisional of U.S. application Serial No. 08/737,192, filed March 28, 1997, and to claim benefit of PCT application PCT/FR95/00634, filed May 16, 1995, and French application 9405987 filed May 17, 1994. No new matter is believed to be added.

Regarding the objection to the abstract, title, and specification, a new abstract and title are presented that are more descriptive of the invention and the specification has been amended as suggested in the outstanding Office Action. Accordingly, it is respectfully requested that this objection be withdrawn.

Regarding the objection to Claims 14 and 15, Claims 14 and 15 are amended to omit the terms "them" and "it" as suggested in the outstanding Office Action. Accordingly, it is respectfully submitted that this objection be withdrawn.

Claims 14-16 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-38 of Maurice in view of Dieudonne and Kawamori. That rejection is respectfully traversed because this application is a divisional of Maurice and the specification has been amended to state that. Accordingly, it is respectfully requested that this rejection be withdrawn.

Claims 14 and 15 were rejected under 35 U.S.C. § 103(a) as unpatentable over Dieudonne in view of Kawamori. That rejection is respectfully traversed.

Briefly recapitulating, independent Claim 14 is directed to a display device having an active matrix, and the display includes a plurality of scanners for selection lines, a plurality of scanners for columns, and a supplementary conductive column. The supplementary conductive column crosses the selection lines and capacitively couples to each of the selection lines in such a way that *each* corresponding coupling capacitance has a value close to a *sum* of coupling capacitances formed between a given selection line and columns crossed by the given selection line.

In a non-limiting example, Figure 11 shows the plurality of scanners D for selection lines j, the columns i, and the supplementary conductive column f. Further, each corresponding coupling capacitance  $C_{fi}$  has a value close to the sum of the coupling capacitances  $C_{ij}$  formed between a given selection line j and the columns i-1 to i+1 crossed by the given selection line j.

The display of independent Claim 14 advantageously preserves a bootstrap effect without secondary effects, prolongs a lifetime of the circuit, and reduces a required number of transistors as compared with the background art.<sup>1</sup>

Turning to the applied art, Dieudonne shows in Figure 1 one scanner DL for selecting one line LA, and two scanners DC for columns CA. However, the outstanding Office Action states that “Dieudonne does not mention a capacitively coupled to each of them in such way that each corresponding coupling capacitance having a value close to the sum of the coupling capacitance formed between a given selection line and the columns with given selection line crosses.”<sup>2</sup>

The outstanding Office Action relies on Kawamori for teaching a supplementary conductive column D1-DN as shown in Figure 1, and dummy capacity elements 5 coupled to the conductive columns D1-DN. Further, the outstanding Office Action asserts at page 6, lines 19-22, that Kawamori teaches that “a sum of the electrostatic capacities of the dummy display element in each line being virtually equal to a sum of electrostatic capacities of all the display elements in the corresponding scanning line in the liquid crystal display element,” and indicates that Kawamori discloses that feature at column 12, lines 30-34. However, Kawamori does not teach or suggest at column 12, lines 30-34, that *each* corresponding coupling capacitance has a value close to a sum of other capacitances, but rather that “a sum of the electrostatic capacities of the dummy display elements in each line [is] being virtually equal to a sum of the electrostatic capacities of all the display elements in the corresponding scanning line in said liquid crystal display element.”

Accordingly, Applicant respectfully submits that Kawamori teaches that a *sum* of first capacities is *equal to another sum* of second capacities and not that *each* capacitance is equal

---

<sup>1</sup> Specification, page 8, line 23 to page 9, line 7.

<sup>2</sup> Outstanding Office Action, page 6, lines 14-17.

to a *sum* of capacities, as required in independent Claim 14.

In addition, the display device of Kawamori includes a dummy-capacity driver 6 that applies single voltages to the dummy capacity section 5, according to the number of on-states and off-states in a selected scanning line (Kawamori, column 7, lines 35-67). Further, Kawamori uses a counter 11a that calculates how many dots of on-state display data have been inputted among the N dots in one line and applies weightings, as disclosed at column 8, lines 60-67. Therefore, the device of Kawamori duplicates the driver with a dummy driver 6 and provides calculation means (counter) and the dummy capacity section 5, which is a complex structure which teaches away from the simple structure of the claimed invention.

Thus, Applicant respectfully submits that one of ordinary skill in the art, when combining Dieudonne with Kawamori, would obtain the complex structure of Kawamori and not the simple structure of independent Claim 14.

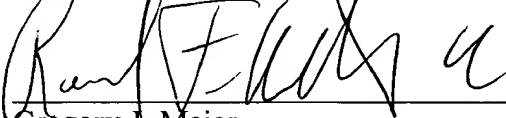
Accordingly, it is respectfully submitted that independent Claim 14 and each of the claims depending therefrom patentably distinguish over the combination of Dieudonne and Kawamori.

New Claims 17-20 have been added to set forth the invention in a varying scope and to recite a display device including a semiconductor device similar to Claim 16, and to include features from Claims 10, 17, 24, and 31, respectively, from the parent application Serial No. 08/737,192, which matured into U.S. Patent No. 6,052,426. Further, new Claims 17-20 find support in Figure 11 and in the specification, at page 3, line 29, to page 6, line 4. Accordingly, it is respectfully submitted new Claims 17-20 are allowable for similar reasons as discussed above.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



Gregory J. Maier  
Attorney of Record  
Registration No. 25,599  
Raymond F. Cardillo, Jr.  
Registration No. 40,440

Customer Number

22850

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 08/03)  
GJM/RFC/RFF:sjh

I:\ATTY\RFF\22s\229536\229536US-AM.DOC